

Based on the following Remarks, Applicants respectfully request that the Examiner reconsider the outstanding rejections and they be withdrawn.

***Rejections Under 35 U.S.C. §103***

In the Office Action, claims 7 and 8 have been rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 5,570,990 issued to Borona, *et al.* ("Borona"). This rejection is respectfully traversed.

Independent claim 7 recites "*selectively* transmitting a communication start signal to the loader by the automatic transfer device *only when* the cassette is transferred to the process apparatus through the automatic transfer device".

As previously argued, Figs. 10 and 11 of Borona shows a manual mobile loader stocker 130 which includes "station transmitter 268 and station receiver 270, housed in communication unit 238" (Column 9, lines 15-16). The station transmitter 268 and station receiver 270 are "*used to communicate with ... communications means 240*" (column 9, lines 16-18). The communication means 240 is a part of the processing equipment 12.

*means shown in fig. 10*

*actually loader 110 shows cart*

Thus, in Borona, a communication start signal is transmitted to the processing equipment 12 by the manual transfer device 130 even if a cassette is transferred to the processing equipment 12 through the manual transfer device 130.

*no it is mobile loader/stocker 110-*

In this regard, in the Office Action, the Examiner quoted column 11, lines 26-40 of Borona and asserted "it is seen that Borona in its fully automated system (i.e., recited automatic transfer device) will detect the presence of the cassette in the first processing station and only then selectively send signal to forward the cassette to the next processing station. ... It is noted that if the sensor does not sense cassettes in the container the start signal bring it to the next

processing station will not given” (Office Action, page 4). This assertion is respectfully disagreed with.

As will be clear from independent claim 7, the present invention is neither directed to nor limited to detecting the presence of the cassette in the first processing station and selectively sending signal to forward the cassette to the next processing station. The present invention is nor directed to nor limited to a system having only automated loader stocker.

Contrarily, the present invention is directed to the method for moving substrates by using a system comprising an automatic transfer device and a manual transfer device, and selectively transmitting a communication start signal *only when the cassette is transferred through the automatic transfer device*. Thus, the Examiner’s understanding of the present invention to which the claims are directed is *inaccurate*.

Regarding the descriptive portion quoted by the Examiner, the portion merely explains “the loader stocker of Fig. 15 could be fully automated” and “the fully automated system would automatically bring the container to the next processing station after receiving instruction or data from the processing tool which the container was taken from” (column 11, lines 26-40).

This descriptive portion is directed to only the fully automated system shown in Fig. 15 (claimed automatic loader stocker) and its function, and there is no description directed to a system utilizing both the fully automated loader stocker of Fig. 15 and the manual loader stocker. In fact, in Borona, the fully automated system is briefly mentioned as an alternative to the manual loader stocker, and Borona lacks any teachings as to a system having both the automatic loader stocker and manual loader stocker, as claimed.

Thus, it would not have been possible for Borona to teach or suggest the claimed method involving both an automatic transfer device and a manual transfer device and transmitting a

No the  
minors  
read on  
claims  
directed as

cl. 11  
line 26-29  
manual  
operation  
see also  
Fig. 16

communication start signal *only when the cassette is transferred through the automatic transfer device.*

As previously mentioned, Borona teaches a communication start signal is transmitted to the processing equipment 12 by the manual transfer device 130 even if a cassette is transferred to the processing equipment 12 through the manual transfer device 130. Thus, Borona indeed teaches away from selectively transferring a communication signal only when a cassette is transferred to the processing equipment through an automatic transfer device, as claimed.

For these reasons, it is submitted that it would not have been obvious to modify the teachings of Borona to arrive at the claimed invention defined in claim 7. Thus, claim 7 would be patentable over Borona. Claim 8 that is dependent from claim 7 would be also patentable at least for the same reason.

Accordingly, Applicants respectfully request that the rejection over claims 7 and 8 be withdrawn.

In the Office Action, claim 9 has been rejected under 35 U.S.C. §103(a) over Borona in view of Borona and U. S. Patent No. 6,238,160 to Hwang, et al. (“Hwang”). This rejection is respectfully traversed.

Claim 9 stems from claim 7. As previously mentioned, claim 7 is patentable over Borona. The secondary reference to Hwang is directed to chucking a wafers, but fails to teach or suggest transferring a communication signal only when a cassette is transferred to the processing equipment through an automatic transfer device, as claimed. Thus, Hwang fails to cure the deficiency from the teachings of Borona, and therefore it would not have been obvious to

combine the teachings of Borona and Hwang to arrive at the claimed invention defined in claim

7. Therefore, claim 9 would be also patentable at least for the same reason.

Accordingly, Applicants respectfully request that the rejection over claim 9 be withdrawn.

***Other Matters***


The entire set of pending claims is provided in the APPENDIX attached hereafter for the Examiner's convenience.

**CONCLUSION**

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, claims 7-9 are in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

  
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## APPENDIX

The entire set of the pending claims 7-9 is as follows.

7. A method for moving substrates in and out of a manufacturing process using a system comprising an automatic transfer device for automatically transferring a cassette that stores substrates, a manual transfer device for transferring the cassette according to an instruction of an operator, and a process apparatus for performing predetermined steps on the substrate stored in the cassette, the process apparatus including a loader having a port on which cassettes transferred by the automatic transfer device and the manual transfer device are placed, and a job table on which the predetermined steps on the substrate stored in the cassette on the port are performed, comprising the steps of:

(a) transferring the cassette to the process apparatus through the automatic transfer device or the manual transfer device when the port is available;

(b) selectively transmitting a communication start signal to the loader by the automatic transfer device only when the cassette is transferred to the process apparatus through the automatic transfer device;

(c) loading the cassette to the port from the automatic transfer device;

(d) loading the cassette to the port according to the instruction of the operator when the cassette is transferred to the process apparatus through the manual transfer device in step (a);

(e) determining whether the cassette is detected on the port;

(f) determining whether the communication start signal is detected when the cassette is detected on the port; and

(g) setting the process apparatus in an automatic transfer mode when the communication start signal is detected, and setting the process apparatus in a manual transfer mode when the communication start signal is not detected.

8. The method of claim 7, wherein step (c) comprises the steps of:  
determining whether the communication start signal is received;  
requesting a cassette loading to the automatic transfer device when the communication start signals is received; and  
loading the cassette to the port according to the request.

9. The method of claim 8, wherein the method further comprises the steps of:  
(h) automatically chucking the cassette when the process apparatus is set in the automatic transfer mode and chucking the cassette according to the instructions of the operator when the process apparatus is set in the manual transfer mode;  
(i) reading the cassette ID of the cassette using the cassette ID reader on the loader; and  
(j) checking a position and a number of the glass substrates in the cassette on the port in step (g).